T.S.S. "TYRRHENIA"

Wm BEARDMORE & Co No 557.

PROFILE AS BUILT.

Glasgow Report No 42003.

Lancastria

n/n "Lancastria"

RETAIN

© 2018
Lloyd's Register
Foundation

T. S. S. "TYRRHENIA".

STRUCTURAL PROFILE.

SCALE 1/8" = 1 FOOT.

MOULDED DIMENSIONS 550' B.P. × 70' × 42'-9" TO "C" DECK.

NAVAL CONSTRUCTION WORKS
SHIP DRAWING OFFICE
WILLIAM BEARDMORE & Co., LTD.
DATE 24·5·22
No. 635/5
DALMUIR, N.B.

A Deck

RETAIN

s/s "Lancastria"
ex
"Tyrrhenia"

LRF-PAF-T825-P-5

© 2018
Lloyd's Register
Foundation

—Nos 557 & 584.—

—"A" DECK PLATING.—

—SCALE 1/4" = 1 FOOT.—

SHIP DRAWING OFFICE
WILLIAM BEARDMORE & Co. Ltd.
Date 11-4-19
No. 5088/17
DALMUIR, N.B.

—RIVETING · TABLE · OTHER · THAN—
—MULTIPLE · PUNCHING—

THICKNESS OF PLATING	RIVETING	WIDTH OF BUTTS	WIDTH OF OUTER EDGE	WIDTH OF INNER EDGE	
ABOVE ·60"	7/8"	12" Q.R	5¼" D.R.	3" S.R	STRINGER PLATES
·48" – ·~~54~~ 60"	7/8"	9" T.R	5¼" D.R.	3" S.R	
·42" – ·48"	3/4"	7½" T.R	4½" D.R	~~3~~ 2½" S.R	
			WIDTH · OF · EDGES		
·42" – ·48"	3/4"	5" D.R	2½" S.R.		DECK · PLATING AT · ENDS
·~~36~~ 34" – ·42	3/4"	3" S.R	2½" S.R.		
·22" – ·~~36~~ 34"	5/8"	2½" S.R	2¼" S.R		
·48" – ·54"	7/8"	9" T.R	3" S.R		DECK · PLtg · AMIDSHIPS.

BEAMS 8" × 3½" × 3½" × ·44" CHANNELS ALL LOOK TOWARDS AMIDSHIPS EXCEPT WHERE OTHERWISE INDICATED.

Aft of 50 frame & ford of 160 frame. beams may be 6 × 3 × ·44 B.A.

Strake alongside hatches & Casings to be increased ·14 in way of closed bridge. with large ~~double rivetted~~ welded corner angles or doublings to be fitted at corners of openings.

may be 4 × 4 × ·46 ~~5 × 5 × ·74~~

edge lap may be single from frame 48 aft

—ELEVATION · SHEWING · BREAK · IN · SHELL—

—ELEVATION · SHEWING · BREAK · IN · SHELL.

R.M.M. 12.5.19.

557-584

Beardmore

B DECK

RETAIN

n/n "Lancastria"

ex

"Tyrrhenia"

© 2018
Lloyd's Register
Foundation

LR-FAF-TB25-P-3

Nos 557 & 584.

"B" DECK PLATING.

SCALE 1/4" = 1 FOOT.

NAVAL CONSTRUCTION WORKS
SHIP
DRAWING OFFICE
WILLIAM BEARDMORE & Co., LTD.
DATE 1.4.19
No. 5583/H
DALMUIR, N.B.

NOTES:-

DECK PLATING TO BE TO THICKNESSES AS MARKED ON PLAN.

INNER & OUTER STRINGERS BUTTLAPS - TREBLE RIVETED THROUGHOUT EXCEPT WHERE OTHERWISE INDICATED.

DECK PLATING BUTTLAPS - DOUBLE RIVETED THROUGHOUT.

aft of frame 40 beams may be 6 × 3 × ·44 B.A.
see letter

RIVETING TABLE OTHER THAN MULTIPLE PUNCHING.

THICKNESS OF PLATING.	RIVETING.	WIDTH OF BUTTS	WIDTH OF OUTER EDGE	WIDTH OF INNER EDGE.	
ABOVE ·60"	7/8"	12" Q.R	5 1/4" D.R	3" S.R	STRINGER PLATES. ✓
·54" - ·60"	7/8"	9" T.R	5 1/4" D.R	3" S.R	
·48" - ·54"	7/8"	9" T.R	5 1/4" D.R	3" S.R	
·42 - ·48	3/4"	7 1/2" T.R	4 1/2" D.R	2 1/2" S.R	
·38 - ·42	3/4"	5" D.R	4 1/2" D.R	2 1/2" S.R	
			WIDTH OF EDGE		
·42 - ·48	3/4"	5" D.R	2 1/2" S.R		DECK PLATING AT ENDS ✓
·48 - ·54	7/8"	6" D.R	3" S.R		
·22 - ·36	5/8"	2 1/2" S.R	2 1/4" S.R		
·36 - ·42	3/4	3" S.R	2 1/2" S.R		
48 To 54	7/8	6" DR	3" SR		DECK PLs ✓ AMIDSHIPS
UP TO ·48	3/4	5" D.R	2 1/2" S.R		

BEAMS 8" - 3 1/2 × 3 1/2 × ·44. CHANNELS ALL LOOK TOWARDS AMIDSHIPS EXCEPT WHERE OTHERWISE INDICATED.

Note Deck plating at corners of openings marked 'D'
to be doubled or to be increased in thickness ·14. with double rivetted deck bars at the corners of openings

BEAMS · LOOK · FORWARD · FROM · THIS · POINT.
GIRDER STERN TO 2. 12'-9" OFF C LINE OF SHIP
BULKHEAD UNDER
18" WATERWAY
FRAMES SPACED 30"
3 1/2 × 3 1/2 × ·50
6 × 6 × ·74 STRINGER ANGLE
PARTIAL 9'8
4 × 4 × ·54
·66 doubling
W.T.B. ABOVE
FRAMES SPACED 30" APART.
FRAMES SPACED 27" APART.
-SECTION THRO' AB-
6 × 6 × ·74 STRINGER BAR FORT OF FRAME 36
3 1/2 × 3 1/2 × ·50 AFT OF 36
CURTAIN PLATE ·5"
"B" DECK
-ELEVATION SHEWING BREAK IN SHELL-
EXTENT OF "A" DECK MEASUREMENT.
HALF · LENGTH
"A" DECK
"B" DECK
"C" DECK
A
B

C Deck Plating

Nos 584 - 594

[illegible] No 25

s/s "Lancastria"

ex

"Tyrrhenia"

RETAIN

© 2018
Lloyd's Register
Foundation

No 557, & 584

"C" DECK PLATING.

SCALE, 1/4 INCH = ONE FOOT.

DECK PLATING

~~CENTRE STRAKE "A" & STRAKE "B" P.&S., ·30;~~ ~~ELSWHERE~~ ·38.

BUTTS DOUBLE RIVETED FOR 1/2 LENGTH AMIDSHIPS, SINGLE RIVETED AT ENDS.

EDGES OF DECK PLATES, SINGLE RIVETED THROUGHOUT.

BUTTS D.R. FOR HALF LENGTH AMIDSHIPS, SINGLE RIVETED AT ENDS.

RIVETING THROUGHOUT 3/4"; BUTTS, D.R. 5"; S.R. 3"

EDGES S.R. 2½"

DECK STRINGER.

53" FOR 1/2 LENGTH AMIDSHIPS, REDUCED TO 46" AT ENDS.

THICKNESS ·46 WITHIN "A" DECK MEASUREMENT; ·54 OUTWITH "A" DECK MEASUREMENT REDUCED TO ·46 AT ENDS.

RIVETING 3/4" UP TO AND INCLUDING ·48 PLATES; 7/8" IN PLATES ABOVE ·48.

BUTTS TREBLE RIVETED, 7½" WIDE FOR PLATES UP TO & INCLUDING ·48
9 " " " ABOVE ·48

EDGES SINGLE RIVETED, 3" WIDE FOR " " "
2½ " " " ·48 AND BELOW.

NAVAL CONSTRUCTION WORKS
DRAWING OFFICE
WILLIAM BEARDMORE & Co. LTD.
DATE 8-4-19
No. 5658/N
DALMUIR, N.B.

corners of
doubt deck plating in way of large openings to be doubled
or strake of plating alongside hatchways to be increased
·14 at corners of hatchways

BUILDERS. Wm. Beardmore & Coy. Ltd.

YARD No. 557

PLAN. D Deck Plating

RETAIN

LLOYDS REGISTER OF SHIPPING
RECEIVED
17 MAR 1919
LONDON.

SHIP'S NAME n/n "Lancastria"

GLASGOW REPORT No

ex

"Tyrrhenia"

— Nº 557 & 584. —

— "D" DECK PLATING —

—SCALE 1/4" = 1'-0"—

NAVAL CONSTRUCTION WORKS
SHIP DRAWING OFFICE
WILLIAM BEARDMORE & Co. LTD.
Date 12.3.14
5409/N
DALMUIR, N.B.

NOTES:—

DECK PLATING ·30 EXCEPT IN WAY OF W.T. FLATS - 122-129, 80-86, 50-54 STARBOARD OF C^L LINE, WHICH HAVE TO BE ·32".

SINGLE RIVETED SEAMS THROUGHOUT. BUTTS DOUBLE RIVETED FOR 1/2 LENGTH, AND SINGLE AT ENDS.

STRINGER PLATES 53" × ·46" TO 41" × ·46

STRINGER PLATE BUTTLAPS ~~double~~ treble RIVETED THROUGHOUT - 3/4" RIVETS.

RIVETING — 7/8" RIVETS IN DECK PLATING THROUGHOUT.

RIVETS SPACED 3 1/2 DIAS C^S TO C^S IN STRINGER BUTTS, AND 4 DIAS C^S TO C^S IN BUTTS OF DECK PLATING.

SHELL ANGLES 4 1/2 DIAS C^S TO C^S TO DECK 3/4" RIVETS; TO SHELL 7/8" RIVETS.

RIVETING IN DECK SEAMS 4 1/2 DIAS C^S TO C^S.

RIVETING IN PLATING TO BEAMS 7 DIAS C^S TO C^S.

BREADTH OF SINGLE RIVETED BUTTLAPS 2 1/2" FOR 5/8 RIVETS.

BREADTH " " " EDGELAPS 2 1/4" " 2 1/2" FOR 3/4" RIVETS.

BREADTH " DOUBLE " BUTTLAPS IN STRINGER PLATES 5" FOR 3/4" RIVETS.

BREADTH " " " BUTTLAPS IN DECK PLATING 4 1/4" " 5/8 RIVETS.

Lloyds

From WILLIAM BEARDMORE & Co., Ld.,
NAVAL CONSTRUCTION WORKS,
DALMUIR.

ENCLOSURE.

To Messrs Lloyds Register of Shipping
Prints (2) 13th March 1914

SINGLE · RIVETED · BUTTLAPS · IN · DECK · PLATING
DOUBLE · RIVETED · BUTTLAPS · IN · DECK · PLATING.
STRINGER PLATE BUTTLAPS ~~DOUBLE~~ treble RIVETED THROUGHOUT.
BEAMS 8" . 3 1/2" . 3 1/2" . ·44" CHANNELS LOOKING TOWARDS AMIDSHIPS EXCEPT WHERE OTHERWISE INDICATED
DOUBLE · RIVETED · BUTTLAPS · IN · DECK · PLATING.
SINGLE · RIVETED · BUTTLAPS · IN · DECK · PLATING.
STRINGER · PLATE · BUTTLAPS · ~~DOUBLE~~ treble · RIVETED · THROUGHOUT.
BEAMS LOOK FORWARD FROM THIS POINT.
"D" DECK
LEADING STEWARDS' LAVATORY
STEWARDS' LAVATORY
LADDERWAY OPENING
HATCH TO STEERING COMPT. (TRUNKED)
GIRDER - STERN TO 8
GIRDER 12-19
See Girder plan
See Girder plan
S.R. LAP
D.R. LAP
A
B
C
D
E
F
G
1/2 LENGTH
1/2 LENGTH

E deck

557

Beardmore & Co.

LLOYDS REGISTER OF SHIPPING
RECEIVED
4-FEB 1919
LONDON.

"E" deck

RETAIN

Office copy

s/s "Lancastria"
ex
"Tyrrhenia"

LR-FAF-[illegible]

© 2018
Lloyd's Register
Foundation

Nº 557.

"E" DECK PLATING.

SCALE ¼" = 1 FOOT.

DECK PLATING ·30, EXCEPT IN WAY OF W.T. FLAT FROM 100 TO 105 WHERE PLATING IS ·44"
SEAMS SINGLE RIVETED THROUGHOUT. BUTTS DOUBLE RIVETED FOR ½ LENGTH, AND SINGLE AT ENDS.
STRINGER PLATE ·40 TO ·34, ·44 IN WAY OF W.T. FLAT FROM 100 TO 105.
STRINGER PLATE BUTTS DOUBLE RIVETED THROUGHOUT.
RIVETING - ⅝" RIVETS IN DECK PLATING, ¾ IN ·44 PLATING IN WAY OF W.T. FLAT FROM 100 - 105
¾" RIVETS IN STRINGER PLATE IN ·44 TO ·35 PLATING AND ⅝" RIVETS IN ·34" PLATING.
RIVETS SPACED 3½ DIARS. CRS TO CRS IN STRINGER BUTTS AND 4 DIARS. CRS TO CRS IN BUTTS OF DECK PLATING. SHELL ANGLES 4½ DIARS. CRS TO CRS. TO DECK FOR ⅞ RIVETS THRO SHELL. not less than 5 rivets in each flange per frame space
RIVETING IN DECK SEAMS 4½ DIARS. CRS TO CRS.
RIVETING IN PLATING TO BEAMS 7 DIARS. CRS TO CRS.
BREADTH OF SINGLE RIVETED BUTT LAPS 2½" FOR ⅝ RIVETS.
BREADTH OF SINGLE RIVETED EDGE LAPS 2¼" FOR ⅝ RIVETS, 2½ FOR ¾ RIVETS.
BREADTH OF DOUBLE RIVETED BUTT LAPS IN STRINGER PLATES 4¼ FOR ⅝ RIVETS. & 5 FOR ¾ RIVETS.

NAVAL CONSTRUCTION WORKS
DRAWING OFFICE
WILLIAM BEARDMORE & Co. LTD.
Date 1-2-14
No. 5021/14
DALMUIR, N.B.

MATERIAL ORDER.

STRINGER PLATES
'A' STRAKE
'B' STRAKE
'C' STRAKE
'D' STRAKE
'E' STRAKE
'F' STRAKE
'G' STRAKE
DETAIL OF KNEE IN WAY OF 15½" FRAME GIRDER.
DETAIL OF KNEE WHERE BEAMS ARE REVERSED IN WAY OF 15½" FRAME GIRDER.
DETAIL OF KNEE IN WAY OF ORDINARY FRAME.
DETAIL OF KNEE IN WAY OF ORDINARY FRAME WHERE BEAMS ARE REVERSED.
DETAIL OF KNEE AT CUT FRAMES Nos 101, 102, 103 & 104-105.
E DECK
8-⅞" RIVETS
REVERSE FRAME
FRAME
CHANNEL
W.T.B.
NON W.T.B.
W.T. FLAT
GIRDER (UNDER)
17'0" OFF CS.
CARGO HATCH
ENGINE ROOM
BOILER ROOM
TRIMMING HATCH
S.R. LAP
D.R. LAP
IN
OUT

✻ Strengthened hatch end beams and coamings on cargo decks sketch to be submitted

✕ Extent of girder to be considered in conjunction with pillar & girder plan

T.S.S. "TYRRHENIA"

Wm BEARDMORE & Co No 557.

MIDSHIP SECTION AS BUILT.

Glasgow Report No. 4200$\overset{5}{3}$.

Mr "Lancaster"

RETAIN

Lancastria

© 2018
Lloyd's Register
Foundation

T. S. S. "TYRRHENIA".
MIDSHIP SECTION
OF
PASSENGER & CARGO STEAMER.
SCALE $\frac{1}{2}$" = 1 FOOT.

MOULDED DIMENSIONS

550'-0" B.P. × 70'-0" × 42'-9" TO "C" Dk.

LENGTH ON L.W.L. = 572'-6" CRUISER STERN.

LENGTH = L = 550'-0"
BREADTH = B = 70'-0"
DEPTH = D = 42'-9" TO BULKHEAD OR "C" DECK.
DRAUGHT = d = 28·7 FEET.

NAVAL CONSTRUCTION WORKS
SHIP DRAWING OFFICE
WILLIAM BEARDMORE & Co., Ltd.
DATE 24.5.22
No. 634/5
DALMUIR, N.B.

LLOYD'S NUMERALS & PROPORTIONS

1ST NUMBER 70 + (42·75 − 8) = 104·75
2ND " 551·1 × 104·75 = 57728
$L/D = \frac{551\cdot 1}{42\cdot 75} = 12\cdot 9$

LLOYD'S EQUIPMENT NUMERAL

2ND NUMERAL 553 × 104·75 = 57926 — 57926

"D" TO "C" DECK:-
ENCLOSED $\frac{553 \times 8 \times 3}{4}$ = 3318 — 3318

"C" TO "B" DECK:-
ENCLOSED $\frac{457 \times 8\cdot 5 \times 3}{4}$ = 2915
DECKHOUSE CASING $\frac{20 + 48\frac{1}{2} \times 8\cdot 5 \times 1}{2}$ = 291
} 3206

"B" TO "A" DECK:-
ENCLOSED $(5 + 18 + \frac{257\frac{1}{2}) \times 8 \times 3}{4}$ = 1683
DECKHOUSE $\frac{52 \times 8 \times 1}{2}$ = 208
} 1891

ABOVE "A" DECK:-
DECKHOUSE $\frac{60 \times 8 \times 1}{2}$ = 240
$\frac{155 \times 8 \times 1}{2}$ = 620
$\frac{22\frac{1}{2} \times 8 \times 1}{2}$ = 90
} 950

EQUIPMENT No. = 67·291

PLANKING.

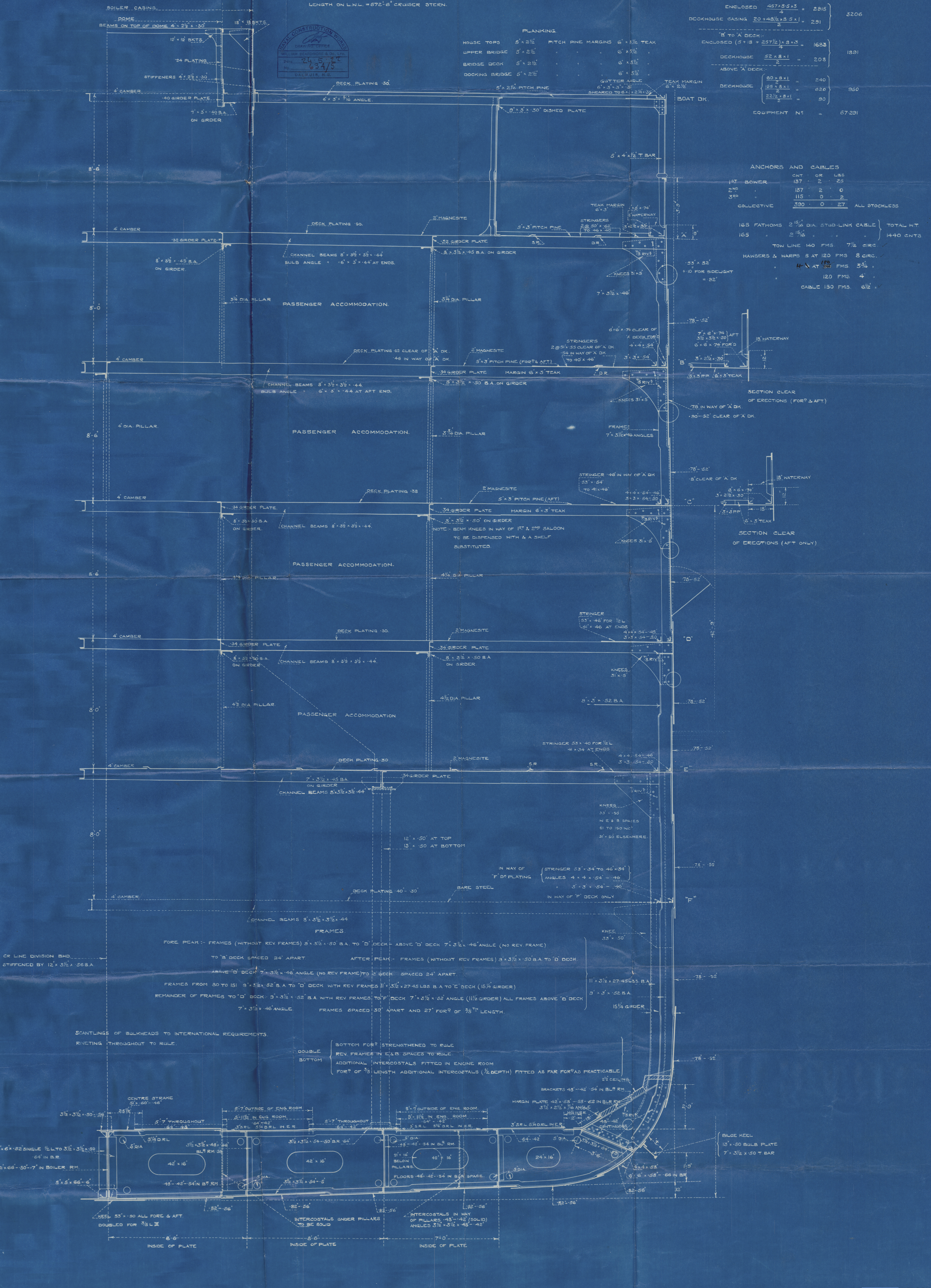
HOUSE TOPS	5" × 2½"	PITCH PINE MARGINS	6" × 3½ TEAK
UPPER BRIDGE	5" × 2½"	" " "	6" × 3½" "
BRIDGE DECK	5" × 2½"	" " "	6" × 3½" "
DOCKING BRIDGE	5" × 2½"	" " "	6" × 3½" "

ANCHORS AND CABLES

	CWT.	QR.	LBS	
1ST BOWER	137 ·	2 ·	25	
2ND "	137 ·	2 ·	0	
3RD "	115 ·	0 ·	2	
COLLECTIVE	390 ·	0 ·	27	ALL STOCKLESS

165 FATHOMS 2 15/16" DIA. STUD-LINK CABLE
165 " 2 15/16" " " "
} TOTAL W.T. 1440 CWTS.

TOW LINE 140 FMS. 7½ CIRC. ✓
HAWSERS & WARPS 5 AT 120 FMS 8 CIRC. ✓
" 4 ~~6~~ AT 100 FMS. 3¾ "
" 120 FMS. 4" "
CABLE 150 FMS. 6½" " ✓


BOILER CASING.
DOME
BEAMS ON TOP OF DOME 4" × 2½" × ·30"
18" × 18 BKTS.
12" × 12" BKTS.
·24 PLATING
STIFFENERS 4" × 2½" × ·30"
4" CAMBER
·40 GIRDER PLATE
7" × 3" × ·40 B.A. ON GIRDER
DECK PLATING ·30.
6" × 3" × 5/16 ANGLE.
5" × 2½" PITCH PINE
GUTTER ANGLE 6" × 3" × 3" × ·35 SHEARED TO 6" × 3" × 2¼ × ·35
TEAK MARGIN 6" × 2½"
BOAT DK.
9" × 3" × ·30" DISHED PLATE
5" × 4" × ½" T BAR
8'-6"
TEAK MARGIN 6" × 3"
5" × ·74"
18" WATERWAY
STRINGERS 2 @ ·50" × ·62" TO 46 × ·40
3" × 2½" × ·30
"A" 9"
DECK PLATING ·50.
2" MAGNESITE
5" × 3" PITCH PINE
·32 GIRDER PLATE
·52 GIRDER PLATE
S.R.
D.R.
CHANNEL BEAMS 8" × 3½" × 3½" × ·44
BULB ANGLE " 6" × 3" × ·44" AT ENDS.
8" × 3½" × ·45 B.A. ON GIRDER.
8" × 3½" × ·45 B.A. ON GIRDER
7/8 RIVs
KNEES 31 × 5
·53" × 82" + ·10" FOR SIDELIGHT = ·92"
7" × 3½" × ·46"
8'-0"
3¼ DIA. PILLAR
PASSENGER ACCOMMODATION.
3¼ DIA. PILLAR
·78" – ·52"
6" × 6" × ·74 CLEAR OF "A" DECK FOR'D
4" × 4" × ·54"
3" × 3" × ·54"
STRINGERS 2 @ 51" × ·55 CLEAR OF "A" DK. ·54 IN WAY OF "A" DK TO 40" × 46"
DECK PLATING ·62 CLEAR OF "A" DK. ·46 IN WAY OF "A" DK.
5" × 3" PITCH PINE (FOR'D & AFT)
·34 GIRDER PLATE
MARGIN 6" × 3" TEAK
8" × 3½" × ·50" B.A. ON GIRDER
CHANNEL BEAMS 8" × 3½" × 3½" × ·44.
BULB ANGLE " 6" × 3" × ·44 AT AFT END.
7" × 6" × ·74
3½ × 3½ × ·50 } AFT
6" × 6" × ·74" FOR'D
18" WATERWAY
3" × 2½" × ·30
12"
"B"
5" × 3" P.P.
6" × 3" TEAK
SECTION CLEAR OF ERECTIONS (FOR'D & AFT.)
KNEES 31" × 5"
·78" IN WAY OF "A" DK.
·90" – ·52" CLEAR OF "A" DK.
4" DIA. PILLAR.
8'-6"
PASSENGER ACCOMMODATION.
3¾ DIA. PILLAR
FRAMES 7" × 3½" × ·46 ANGLES
STRINGER ·46" IN WAY OF "A" DK 53" × ·54" TO 41 × ·46"
·78" – ·52"
·8" CLEAR OF "A" DK
18" WATERWAY
6" × 6" × ·74"
3" × 2½" × ·30
DECK PLATING ·38
2" MAGNESITE
5" × 3" PITCH PINE (AFT)
4" × 4" × ·54" – ·46
3" × 3" × ·54" – ·50
"C"
3" × 3" P.P.
18"
6" × 3" TEAK
SECTION CLEAR OF ERECTIONS (AFT ONLY)
·34 GIRDER PLATE.
8" × 3½" × ·50 B.A. ON GIRDER.
CHANNEL BEAMS 8" × 3½" × 3½" × ·44.
·34 GIRDER PLATE
MARGIN 6" × 3" TEAK
8" × 3½" × ·50" ON GIRDER
NOTE:- BEAM KNEES IN WAY OF 1ST & 2ND SALOON TO BE DISPENSED WITH & A SHELF SUBSTITUTED.
KNEES 31" × 5"
PASSENGER ACCOMMODATION.
8'-6"
4¼" DIA. PILLAR.
4¼" DIA. PILLAR
·78" – ·52"
STRINGER 53" × ·46" FOR ½ L ·41" × ·46 AT ENDS
4" × 4" × ·54" – ·45
3" × 3" × ·54" – ·50
"D"
42'-9"
DECK PLATING ·30.
2" MAGNESITE
·34 GIRDER PLATE
·34 GIRDER PLATE
8" × 3½" × ·50 B.A. ON GIRDER
CHANNEL BEAMS 8" × 3½" × 3½" × ·44.
8" × 3½" × ·50 B.A. ON GIRDER.
KNEES 31" × ·5"
4½" DIA. PILLAR.
4½" DIA. PILLAR
PASSENGER ACCOMMODATION
8'-0"
9" × 3" × ·52 B.A.
·78" – ·52"
STRINGER 53 × ·40 FOR ½ L. 41 × ·34 AT ENDS
4" × 4" × ·54" – ·46
3" × 3" × ·54" – ·50
"E"
DECK PLATING ·30
2" MAGNESITE
S.R.
S.R.
·34 GIRDER PLATE
7" × 3½" × ·45 B.A. ON GIRDER
CHANNEL BEAMS 8" × 3½" × 3½" ·44"
7/8 RIVs
KNEES 33" × ·50 IN E & B SPACES 81 TO 150 INC. 31" × ·50 ELSEWHERE.
8'-0"
12" × ·50" AT TOP
13" × ·50 AT BOTTOM
IN WAY OF "F" Dk PLATING
STRINGER 53" × ·34" TO 46" × ·34"
ANGLES 4" × 4" × ·54" – ·46"
" 3" × 3" × ·54" – ·46"
IN WAY OF "F" DECK ONLY
DECK PLATING ·40" – ·30"
BARE STEEL
4" CAMBER
"F"
·78" – ·52"
CHANNEL BEAMS 8" × 3½" × 3½" × ·44
KNEE 33" × ·50"
CR. LINE DIVISION BHD. STIFFENED BY 12" × 3½" × ·56 B.A.
11" × 3½" × 27·45 LBS. B.A.
9" × 3" × ·52 B.A.
15¼ GIRDER
·78" – ·52"
2½" CEILING.
BRACKETS 48" – ·42" ·54" IN BLr. RM.
MARGIN PLATE 42" × ·58" – ·58 – ·62 IN BLR. RM.
3½" × 2½" × 7/16 ANGLE
1¼ LINER.
12"
18"
7/8 RIVs
48" – ·42" CONTINUOUS
2'-9"
1'-9"
12"
BILGE KEEL
13" × ·50 BULB PLATE
7" × 3½ × ·50 T. BAR
4" × 4" × ·58"
6" × 6" × ·58" – ·66 IN BR
3½" × 3½" × ·54" ·50"
3'-6"
5" DIA.
24" × 16"
·64" – ·42"
3" S.R.L. 5¼ D.R.L. IN E.R.
CENTRE STRAKE 51" × ·60" – ·46"
3½" × 3½" × ·50" – ·56"
25½"
5'-7" THROUGHOUT ·64" – ·48"
5¼ D.R.L.
5" DIA.
6" × 6" × ·52 SINGLE ½ L. TO 3½" × 3½" × ·50 ·64" IN B.R.
51" × 66" – ·50" – ·7" IN BOILER RM.
5" × 5" × 66" – ·6"
42" × 16"
3½" × 3½" × ·48" × ·46 BLr. RM. ·58
·48" – ·42" – ·54" IN Br. RM
5'-7" OUTSIDE OF ENG. ROOM
5'-11½" IN ENG. ROOM ·64" – ·42"
3" S.R.L. 5¼ D.R.L. IN E.R.
5'-7" THROUGHOUT ·64" – ·42"
3½" × 3½" × ·54" – ·50" B.R. ·64"
42" × 16"
5" DIA.
3½" × 3½ × ·54" – ·5"
5'-7" OUTSIDE OF ENG. ROOM.
5'-11½" IN ENG. ROOM ·64" – ·42"
3" S.R.L. 5¼" D.R.L. IN E.R.
5" DIA.
·48" – ·42" – ·54 IN BLr. RM.
21" × 16" BELOW PILLARS.
42" × 16"
FLOORS ·48" – ·42" – ·54" IN BLr. SPACE.
5" DIA.
KEEL 53" × ·90 ALL FORE & AFT. DOUBLED FOR 3/5 L
·82" – ·56"
·82" – ·56"
INTERCOSTALS UNDER PILLARS TO BE SOLID
·82" – ·56"
·82" – ·56"
INTERCOSTALS IN WAY OF PILLARS ·48" – ·42" (SOLID) ANGLES 3½" × 3½" × ·48" – ·42"
·82" – ·56"
·82" – ·56"
8'-6" INSIDE OF PLATE
8'-6" INSIDE OF PLATE
7'-0" INSIDE OF PLATE

FRAMES.

FORE PEAK:- FRAMES (WITHOUT REV. FRAMES) 9" × 3½" × ·50" B.A. TO "D" DECK – ABOVE "D" DECK 7" × 3½" × ·46" ANGLE (NO REV. FRAME) TO "B" DECK SPACED 24" APART.

AFTER PEAK:- FRAMES (WITHOUT REV FRAMES) 9" × 3½" × ·50" B.A. TO "D" DECK. ABOVE "D" DECK 7" × 3½" × ·46" ANGLE (NO REV FRAME) TO "C" DECK. SPACED 24" APART.

FRAMES FROM 80 TO 151 9" × 3½" × ·52" B.A. TO "D" DECK WITH REV FRAMES 11" × 3½" × 27·45 LBS. B.A. TO "E" DECK (15¼ GIRDER)

REMAINDER OF FRAMES TO "D" DECK:- 9" × 3½" × ·52" B.A. WITH REV FRAMES TO "F" DECK 7" × 3½" × ·52" ANGLE (11½ GIRDER) ALL FRAMES ABOVE "D" DECK 7" × 3½" × ·46" ANGLE. FRAMES SPACED 30" APART AND 27" FOR'D OF 3/5TH LENGTH.

SCANTLINGS OF BULKHEADS TO INTERNATIONAL REQUIREMENTS.
RIVETING THROUGHOUT TO RULE.

DOUBLE BOTTOM
- BOTTOM FOR'D STRENGTHENED TO RULE
- REV. FRAMES IN E & B. SPACES TO RULE.
- ADDITIONAL INTERCOSTALS FITTED IN ENGINE ROOM
- FOR'D OF 3/5 LENGTH ADDITIONAL INTERCOSTALS (½ DEPTH) FITTED AS FAR FOR'D AS PRACTICABLE

Wm Beardmore & Co Ltd

D. E. Boilers No 5-5-7

Duplicate of 584.

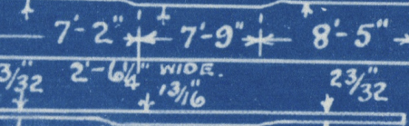
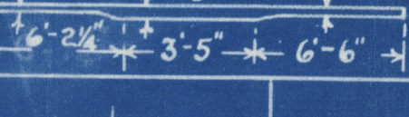
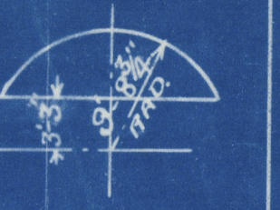
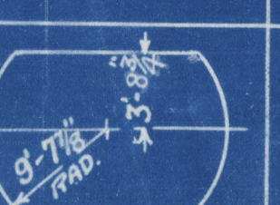
"Tyrrhenia"

Gls. 42003.

Wm "Lancastria"

LRF-[illegible]-P-6

LIST OF PLATES FOR 3 D.E. BOILERS

LETTER	Nº OFF	LENGTH	BREADTH	THICKS.	PURPOSE.	TENSILE TONS PER □"
14B	12	12'-0"	4'-10¼"	15/16"	CENTRE FIREBOX TUBE PLATE.	26-30
15B	12	12'-0"	4'-10¼"	23/32"	" " BACK.	26-30
16B	12	8'-10½"	5'-9¾"	15/16"	WING " TUBEPLATE.	26-30
17B.	12	8'-10½"	5'-9¾"	23/32"	" " BACK.	26-30
20B.	12	 23/32" 2'-6¾" WIDE 13/16" 23/32" 7'-2" 7'-9" 8'-5"			CENTRE FIREBOX WRAPPER	26-30
21B.	12	 23/32 2'-6¼" WIDE. 13/16 23/32" 6'-2¼" 3'-5" 6'-6"			WING FIREBOX WRAPPER	26-30
9B.	6	 3'-3" 9'-8¾" RAD.		1¼"	END PLATE TOP	26-30
10B.	6	 9'-7⅞" RAD. 3'-8¾"		1"	END PLATE BOTTOM.	26-30
11B	12	6'-10½"	1'-0"	1"	END PLATE (DOUBLINGS)	26-30
	6	8'-3"	1'-7½"	1"	" " (")	26-30
12B	42	4'-9"	2'-10"	¾"	FIRE BOX GIRDERS	28-32
13B	3	4'-4"	3'-7½"	¾"	" " SUPPORTS	28-32
1B	6	31'-1"	7'-11¼"	1 21/32	SHELL OUTER TOP	30-34
2B	6	24'-5½"	7'-11¼"	1 21/32	" " BOTTOM	30-34
3B	3	18'-9½"	7'-11¼"	1 21/32	" INNER TOP	30-34
4B	3	35'-10¾"	7'-11¼"	1 21/32	" " BOTTOM	30-34
5B	12	7'-11¼"	2'-0¼"	1 9/32	BUTT STRAP OUTER. OUTER STRAKE	30-34
6B	12	6'-2"	2'-0¼"	1 15/32"	" " INNER " "	30-34
7B	6	5'-8¾"	2'-0¼"	1 9/32"	" " OUTER INNER "	30-34
8B	6	7'-11¼"	2'-0¼"	1 15/32"	" " INNER " "	30-34
18B	6	9'-0"	2'-5"	23/32"	CENTRE FIREBOX WRAPPER (2 IN 1)	26-30.
19B	12	7'-4½"	2'-6"	23/32"	WING " " .	26-30.

LIST OF LAPWELDED IRON TUBES (3 D.E. BOILERS)

LETTER	Nº OFF		EXT. DIA.	THICKS.	FINISHED LENGTH	
	1860	PLAIN TUBES.	2¾"	8 W.G.	8'-1¼"	
A	132	STAY "	"	⅜"	8'-1¼"	WITH NUTS
A	276	" "	"	⅜"	8'-0¾"	WITHOUT NUTS
B	264	" "	"	5/16"	8'-0¾"	" "
C	288	" "	"	¼"	8'-0¾"	" "

6 STEEL ANGLE BARS 4"x3"x½"x26'-0" LONG. FIRE BOX SUPPORTS
TENSILE STRENGTH 26 TO 30 TONS ELONGATION 23% IN 8 INCHES

FOR ORDER FOR PLATES FOR 584's BOILERS SEE SK. Nos 2B/584 & 3B/584.
" " " FURNACES " " " " " Nº 4B/584.
" " " TUBES " 584 & 557's " " " Nº 5B/584-557.
" " " MANHOLE DOORS " " " " " " " Nº 6B/584-557.
" " " STEEL STAY BAR MATERIAL FOR 584 & 557's BOILERS SEE SK. Nº 7B/584-557.
" " " IRON " " " " " " " " " " Nº 8B/584-557.
" " " PLATES FOR 557's BOILERS SEE SK. Nos. 10B/557 & 11B/557.
" " " FURNACES " " " " " Nº. 12B/557.

	I.D.E.	I.S.E.	TOTAL	RATIO TO G.A.
GRATE AREA.	165·8 □'	82·94 □'	746·46 □'	
HEATING SURFACE. TUBES	5329·0 □'	2664·5 □'	23980·5 □'	32·2
" " FURNACE	423·15	211·57	1904·16 □'	
FIREBOX.	728·7	364·35	3279·15 □'	
TOTAL HEATING SURFACE	6480·85	3240·42	29163·8 □'	39·06
AREA THRO' TUBES WITHOUT SUPERHEATER	27·926 □'	13·963 □'	125·667	GA/A = 5·95/1
AREA THRO' TUBES WITH SUPERHEATER				
STEAM CAPACITY.	1121 □'	578 □'	5097 □'	6·82

TENSILE STRENGTH OF COMPENSATING RINGS 26-30 TONS.

3'-4"
16"x12" MANHOLE
THIS RADIUS & HOLE IN SHELL TO BE MADE AS SMALL AS POSSIBLE
HOLE IN SHELL
1 3/16 DIA RIVETS FINISHED (MACHINE)
SCREWED 9 THREADS PER INCH
DETAIL OF STAYS BETWEEN COMBUSTION CHAMBER & SHELL
SHELL
CAULKED
PLATE = 58·4%
RIVET = 50·4% B/T.
" = 55·8% LLOYD'S
RIVETS 1 21/32 DIA FINISHED (MACHINE)
LONG JOINT
RIVETS 1 21/32 DIA. FINISHED (MACHINE.)
RIVETS 1 23/32 DIA FINISHED
PLATE 65·09%
RIVET 65·45 B/T.
" 72·5 LLOYD'S
SCREWED 9 THREADS PER INCH
50 PLAIN TUBES TO BE SUPPLIED SPARE
TUBES LAPWELDED IRON
MIDDLE CIRL SEAM MACHINE
BUTT STRAPS END CIRL SEAMS & MANHOLE COMP PLATE
END CROSS SEAMS & DOUBLINGS HAND & MACHINE
FIREBOX SUPPORTS HAND
FIREBOX & FURNACES HAND & MACHINE

SHELL PLATES 1 21/32" THICK. BUTT STRAPS — 1 9/32" THICK OUTSIDE, 1 15/32" " INSIDE.
TO BOARD OF TRADE & LLOYD'S REQUIREMENTS & TESTS.
WORKING PRESSURE = 220 LBS. PER. SQ. INCH.
TEST " = 385 " " " "
STEEL THROUGHOUT EXCEPTING TUBES & COMBUSTION CHAMBER STAYS WHICH ARE OF IRON.
ALL HOLES DRILLED IN PLACE AFTER BENDING.
TENSILE STRENGTH OF SHELL PLATES & BUTT STRAPS 30 TO 34 TONS. PER. SQ. INCH WITH ELONGATION OF 20% IN 8 INCHES.
TENSILE STRENGTH OF GIRDER PLATES 28 TO 32 TONS PER. SQ. INCH. WITH ELONGATION OF 20% IN 8 INCHES
TENSILE STRENGTH OF END PLATES & COMBUSTION CHAMBER PLATES 26 TO 30 TONS PER. SQ. INCH WITH ELONGATION OF 23% IN 8 INCHES.
COMBUSTION CHAMBER SCREWED STAYS TO BE IRON HAVING TENSILE OF 21½ TONS. PER. SQ. INCH. WITH ELONGATION OF 27% IN 8 INCHES.
PLATES SUPPLIED BY.

BUTTSTRAP ON MID STRAKE
1" DIA. RIVETS 3⅜" PITCH (MACHINE)
BUTTSTRAP ON END STRAKES
PLATE BORED
MANHOLE FITTED ON LEFT HAND SIDE OF BOILER ONLY WHEN LOOKING ON EITHER END
16"x12" MANHOLE ON EACH END
MEAN CIRC = 664·939
MEAN CIRG = 654·53
134 PITCHES @ 4·884
2-¾" STUDS 5" CENTRES
4½"x3"x⅜" ANGLES.
¾" BOLTS.
MACHINE RIVETED
HAND RIVETED
NETT AREA = 7·06 □"
STAYS TO BE ANNEALED ALL OVER AFTER BEING STAVED UP.
3 x ⅝ FLAT BAR SUPPORTS
22'-6" MEAN LENGTH
WASHERS 6" DIA x ⅝ THICK
2 PLATES ⅝ THICK
7'-10½ BETWEEN TUBE PLATES
FURNACE TURNED
MORISON SUSPENSION FURNACES
GRATE 5'-6" LONG
FURNACE FLANGES TUBE PLATES THINNED
IN HYDRAULIC PRESS. TO 2⅜" DIA. AT ENDS & SCREWED 6 THDS PER INCH.
AFTER STAVING
WASHERS 4½" DIA. x ¼" THICK.
7'-10½"
10"

-3 OFF-D.E. BOILERS. [redacted]

[redacted] FOR ENG. Nº 557.

COST SECTION-WORKING 50.
" " - SPARE 60.

ENG. Nº [redacted] 557

D.E. BOILERS.

SCALE:-1" = ONE FOOT

17/2/19

FROM WILLIAM BEARDMORE & CO., LIMITED,
(ENGINE DEPARTMENT), DALMUIR.
ENCLOSURE
FOR
Lloyds Surveyors
Glasgow.

NAVAL CONSTRUCTION WORKS
22 APR 1919
WILLIAM BEARDMORE & CO. LTD
ENGINE DEPT
DALMUIR

4132

Wm Beardmore & Co
No 557
Thrust Shaft as now
made.

T.S.S. "Tyrrhenia"

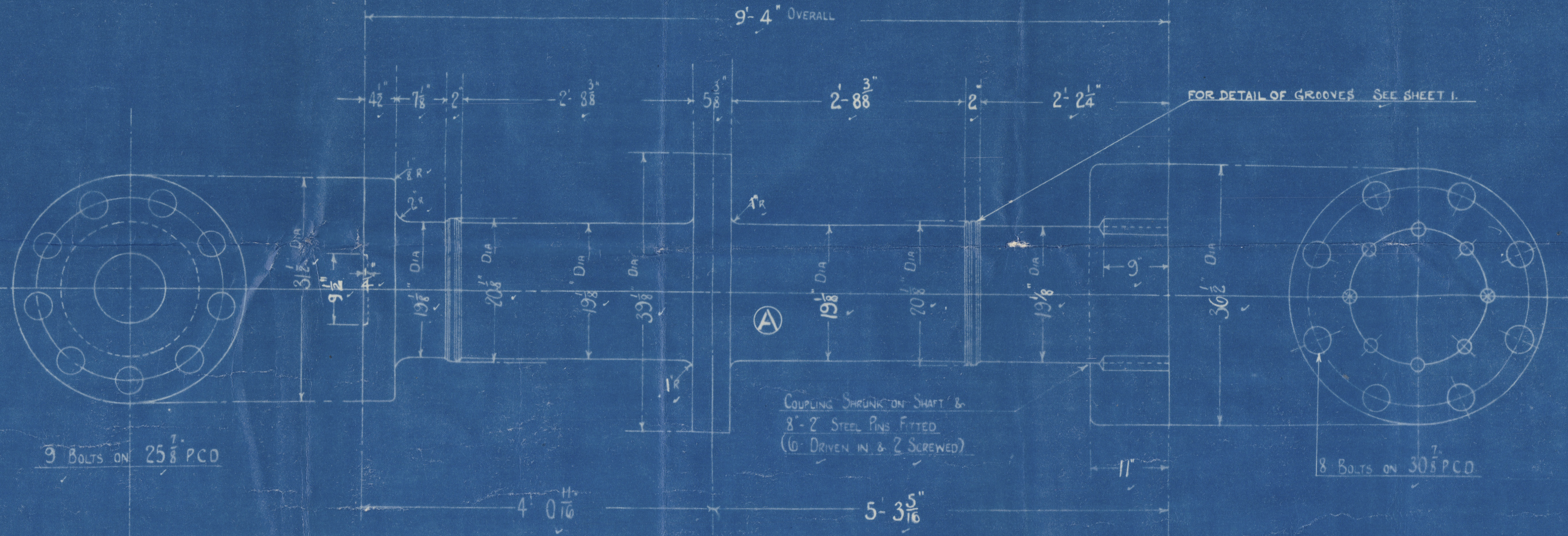
GLASGOW REPORT No.

r/n "Lancastria"

RETAIN

LR-FAF-TB25-1-7

© 2018
Lloyd's Register
Foundation

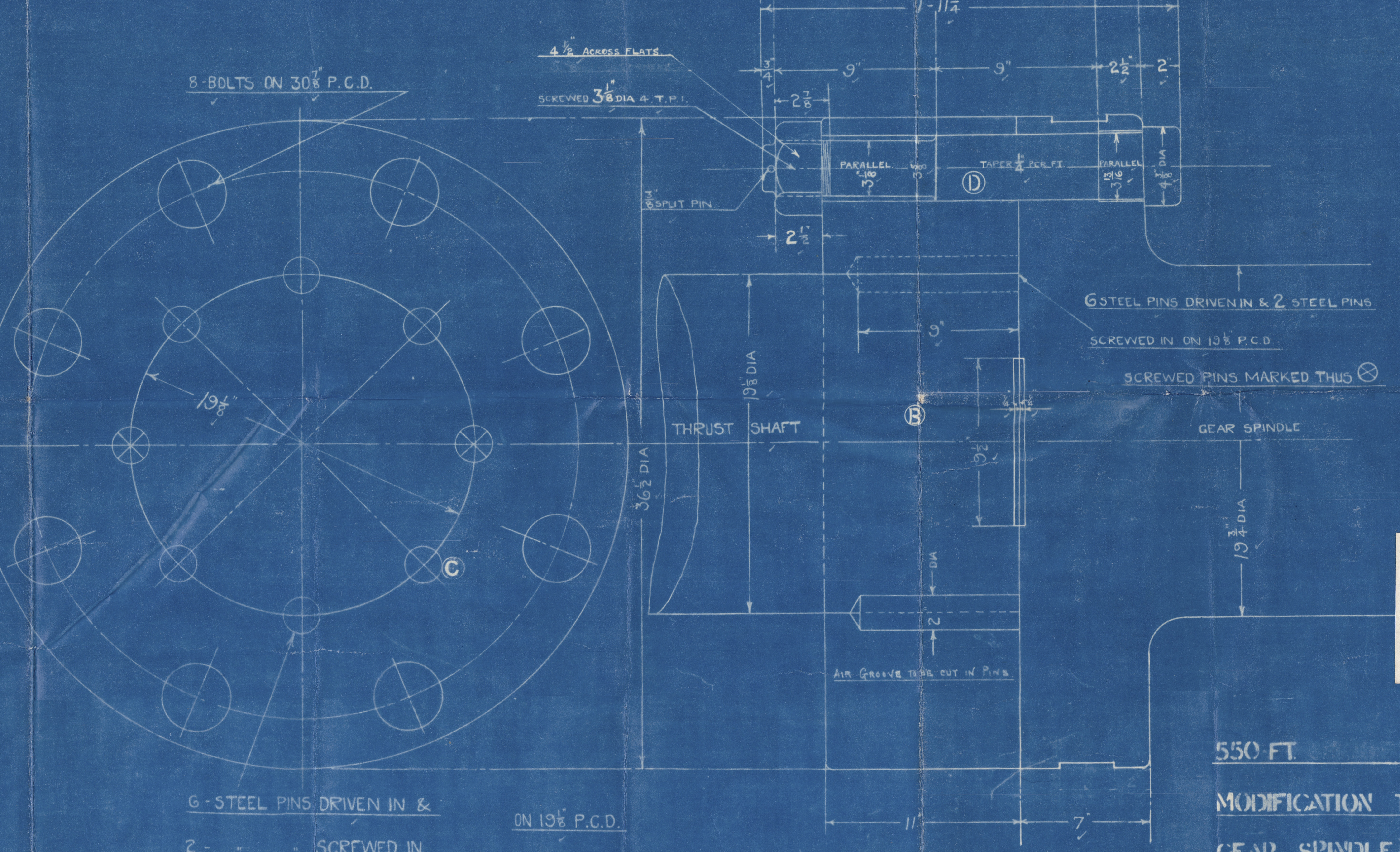


THRUST SHAFT 2-OFF.

SCALE 1" = 1 FOOT.

QUANTITIES MARKED ARE FOR ENG No 557 ONLY.

MARK	DESCRIPTION.	No OFF.		MATERIAL.	REMARKS.	ORDER No
		WORKING	SPARE.			
Ⓐ	THRUST SHAFT.	2.		INGOT STEEL		14/50.
Ⓑ	COUPLING. THRUST SHAFT.	2.		" "		193 T. 584-557
Ⓒ	PINS FOR COUPLING " "	16		STEEL.	12 DRIVEN. 4. SCREWED.	192 T. 584-557.
Ⓓ	COUPLING BOLTS.	16	2.	STEEL	TENSILE STRENGTH 28 TO 32 TONS.	192 T. 584-557.



G-STEEL PINS DRIVEN IN &
2 - " " SCREWED IN
ON 19⅛" P.C.D.

SCREWED PINS MARKED THUS ⊗

DETAIL OF COUPLING

SCALE 3" = 1 FOOT

COST.
SECTION.
WORKING. 8.
SPARE. 20.

From WILLIAM BEARDMORE & CO., LIMITED,
(ENGINE DEPARTMENT), DALMUIR.
ENCLOSURE
FOR
Lloyds Register of Shipping
Glasgow

573
W. M. & A. Westminster

1
1 24.3.20.
1 Machine 24.3.20.
1 24.3.20
1 Mr Denholm 22.3.20.

550 FT. CUNARDERS.
MODIFICATION TO THRUST SHAFT &
GEAR SPINDLE COUPLINGS.
SCALES:- 1" & 3" = 1 FOOT

Lloyds

JHC 20-3-20

ENG. No 557
— 2. SHEETS — SHEET 2.

LLOYDS

14[illegible]60

E

Recd. with letter of 19.2.20
E.236
584

© 2018
Lloyd's Register
Foundation